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Almy, John J.

Report in regard to Chiriqui
Lagoon.



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John J.

REPORT OF CAPT. ALMY, U. S. N.



UNITED STATES STEAMER "FULTON."
NORFOLK, VA. Sept. 25th, 1858.

SIR :—

I hereby acknowledge the receipt of your communication, dated the 18th inst., desiring me to report to you upon the following inquiries in regard to Chiriqui Lagoon, which I do accordingly, to the best of my knowledge and abilities, after spending nearly a month there while in command of this steamer.

Is the Chiriqui Lagoon a proper harbor for vessels of the largest class?

It is decidedly so, and an unlimited number can be anchored there at any and all times in perfect safety.

How many entrances are there to it, and are they easy of access—deep and capable of protection by any land works which could be readily thrown up?

There are three entrances into Chiriqui Lagoon from the sea: Boca del Toro, the centre; Boca del Drago, the western, and Tiger Channel, the eastern. All are easy of access—deep, and capable of protection by land-works which could be thrown up.

Boca del Drago, or "Bogueo Mouth," as it is called by the inhabitants there, has the deepest channel and the easiest entrance for the heaviest class of vessels, such as line of battle ships. Much information and assistance can be obtained in answer to the two preceding questions by reference to the admirable chart from the survey of Captain Edward Barnett, R. N., and published by the English Admiralty, which charts

are easily obtained. There are good pilots to be had at the settlements of "Isabel," situated on the southeastern point of Columbus Islands, which village contains 100 houses, and about 1,000 inhabitants. But upon the different islands and shores of the Lagoon it is estimated that there are about 1,700 inhabitants altogether.

Are the islands (particularly Pope's Island), such as would form a good Naval Depot, and could arrangements readily be made to procure a supply of timber for repairs and construction?

A Naval Depot could be formed at Pope's Island, but whether it would be a good one I am not prepared to say. I should have to give it a further examination, and witness the effects of a gale of wind there. As a general thing, the water shallows out quite far all around this island, and the bottom is uneven with lumps. But the most secure and best sheltered harbor, feasible for wharves, docks, etc., in Chiriqui Lagoon for a Naval Depot, is Shepherd's Harbor, where there is a coal mine also as well as at Pope's Island.

In regard to arrangements being readily made to procure a supply of timber for repairs and construction, I am unable to say. There is an immense quantity of timber, and variety of woods growing throughout the shores of the Lagoon and vicinity; but whether it is fit material for large vessels, such as ships and steamers, I have had no means of ascertaining. I don't think that any of it has yet been tried, except upon a small scale. The settlers have built a few small craft—boats and canoes—which they state answer all their purposes, and stand wear and tear of service, very well.

Are there good supplies of fresh water, and readily obtainable?

There are several streams and springs about the Lagoon, and there was no difficulty in procuring plenty of fresh water at all times for the "Fulton." The watering facilities might be much improved, and doubtless would be, if there was a greater demand for water to supply vessels.

Are there abundant supplies of turtle, fish, and fruit, and at reasonable prices?

When the Fulton was there—which was in November and December—there was an abundance of the finest large turtle, and also of the most luscious oranges that I ever ate, and at very moderate prices. There is also plenty of fish, requiring only implements, and persons skilled in it to catch them.

Are there coal veins or deposits on Pope's Island and on the main shore?

There is a coal mine on Pope's Island; one at a locality called "Secretary, on the main land; one in the vicinity of Shepherd's Harbor; and one on the main land, west side of Alminante Bay, which it was stated produced the best quality of coal of any of the mines. At the first two named places, I obtained specimens of the coal which were tried and experimented upon, both on board of this vessel and the United States steam frigate "Wabash."

Is there within your knowledge any road or opening of a road across from the Lagoon to the Pacific? and if so, do you consider it a good route?

I have never travelled over nor seen this road; but while in Chiriqui Lagoon, I was informed that a horse-back road had been completed between there and the port of San Pedro, on the Pacific, which road could be easily widened into one for carriages; and also heard from various authentic sources that the route is a very healthy one, which I have every reason to believe is the case.

Have you obtained any information as to the harbor on the Pacific side?

I have no personal knowledge of it, never having been there.

Could coal be transported over the opening between the Lagoon and the Pacific, so as to give a supply for naval purposes at the Pacific Harbor?

It could *not* in the present condition of the road; nor could it be done unless a railroad was constructed entirely across.

Has the engineer of the "Fulton," Mr. Newell, made any experiments with coal obtained from the vicinity of the Lagoon, and if so, he will please answer the following questions?

Mr. Newell did make a trial with a small quantity of coal, obtained from the mines of "Pope's Island" and "Secretary," and makes the accompanying explanations and answers to questions in the paper hereunto annexed.

I will take this occasion, which I do not deem out of place, to remark that the importance of Chiriqui Lagoon in a national, naval, and maritime point of view generally, cannot be over estimated in the eyes of any nation aiming at ascendancy in the Central American States. It is situated just half way between Aspinwall and San Juan del Norte (or Greytown), and possesses comparatively a healthy climate. From my answers to the preceding questions, and from a glance at the chart, it will be seen that it possesses very many of the requisites for a great naval station, and any maritime nation even of limited power, once obtaining a foothold there, would make her influence decidedly felt in that quarter.

It is the opinion of all intelligent persons who have visited the coal mines upon the shores of Chiriqui Lagoon, that if properly "tapped," shafts sunk and worked as coal mines are in the United States, that there will be found an abundance of coal of a superior quality, the value of which in that part of the world, under circumstances which may often arise, is beyond any calculation.

The lands of the Province of Chiriqui are very fertile, and upon the high lands back, half-way between the Lagoon and the Pacific, are to be found the best cattle and beef in New

Granada and Central America. The people are liberal in their feelings and ideas—more so than those of the other provinces around them—and invite settlers from the United States to come among them—will *give* them lands provided they come *quietly* as agriculturists and farmers to locate there, in which they extend all friendly encouragement.

I am, sir, very respectfully, your obedient servant,

JOHN J. ALMY, U. S. N.,
Lieut. Commanding U. S. Steamer Fulton.

HON. ISAAC TOUCEY,
Secretary of the Navy.

UNITED STATES STEAMER FULTON,
NORFOLK, *Sept. 24th*, 1858.

SIR :—

In reply to the questions asked by the Hon. Secretary of the Navy relative to the coal in Chiriqui Lagoon, I have to answer that the tests made of this coal on board of this ship were very limited, and not extensive enough to enable me to answer on the questions proposed.

Question 1st.—Is it bituminous or semi-bituminous, or is it a lignite and not a pure coal?

Answer.—I think it is semi-bituminous, and a pure coal.

Question 2d.—How many pounds of water can be evaporated by one pound of this coal, estimating the best anthracite to evaporate 10 lbs. of water to 1 lb. of coal?

Answer.—I made no experiments to determine its evaporative qualities.

Question 3d.—Does it clinker on the grate bars, and is the quantity of ashes great or otherwise?

Answer.—There being no auxiliary boiler on board, and the quantity of coal procured not being sufficient to try it in the large boiler, I am unable to answer this question.

Question 4th.—How does its specific gravity compare with anthracite or Cumberland coal?

Answer.—I made no test of its specific gravity.

Question 5th.—Would it be subject to spontaneous combustion on account of sulphur or iron pyrites being incorporated with it?

Answer.—I discovered no sulphur or iron pyrites in it, and do not think it would be subject to spontaneous combustion.

Question 6th.—Would it break up into fine particles by twice handling?

Answer.—I do not think that it would.

Respectfully, your obedient servant,

H. NEWELL,
1st Assistant Engineer, United States Navy.

LIEUT. J. J. ALMY,
Commanding U. S. S. *Fulton*, Norfolk Navy Yard.

[Copy.]

U. S. STEAM FRIGATE *WABASH*,
Aspinwall, Dec. 30th, 1857.

SIR:—

In compliance with your directions, I have this day made an examination by practical test of the coal brought me by the steamer *Fulton*, from Balas del Toro.

There was only about five hundred pounds in all, yet sufficient to try in auxiliary boiler and the forges, and to form a fair idea of its quality.

This coal was taken from the surface, the mine not having been penetrated more than sixteen inches, and although its vitality has been nearly destroyed by the rains for many years,

its combustion was tolerably good, producing steam as well as some of our own coal.

It is bituminous, and evidently from a superior variety, similar to the Indiana Cannel. I have no doubt of the superiority of the mine.

Respectfully,

Your ob't. Serv't.

(Signed)

J. W. KING
Chief Engineer.

COMMODORE H. PAULDING,
Comm'd'g. Home Squadron.



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